

§ 267.191

40 CFR Ch. I (7–1–12 Edition)

9095B (Paint Filter Liquids Test) as described in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, as incorporated by reference in 40 CFR 260.11.

(b) You do not have to meet the secondary containment requirements of § 267.195(a) if your tank system, including sumps, as defined in 40 CFR 260.10, is part of a secondary containment system to collect or contain releases of hazardous wastes.

§ 267.191 What are the required design and construction standards for new tank systems or components?

You must ensure that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection to ensure that it will not collapse, rupture, or fail. You must obtain a written assessment, reviewed and certified by an independent, qualified registered professional engineer, following 40 CFR 270.11(d), attesting that the tank system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. This assessment must include, at a minimum, the following information:

(a) Design standard(s) for the construction of tank(s) and/or the ancillary equipment.

(b) Hazardous characteristics of the waste(s) to be handled.

(c) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system will be in contact with the soil or with water, a determination by a corrosion expert of:

(1) Factors affecting the potential for corrosion, such as:

(i) Soil moisture content.

(ii) Soil pH.

(iii) Soil sulfides level.

(iv) Soil resistivity.

(v) Structure to soil potential.

(vi) Existence of stray electric current.

(vii) Existing corrosion-protection measures (for example, coating, cathodic protection).

(2) The type and degree of external corrosion protection needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following:

(i) Corrosion-resistant materials of construction such as special alloys, fiberglass reinforced plastic, etc.

(ii) Corrosion-resistant coating (such as epoxy, fiberglass, etc.) with cathodic protection (for example, impressed current or sacrificial anodes) and

(iii) Electrical isolation devices such as insulating joints, flanges, etc.

(d) Design considerations to ensure that:

(1) Tank foundations will maintain the load of a full tank.

(2) Tank systems will be anchored to prevent flotation or dislodgment where the tank system is placed in a saturated zone, or is located within a seismic fault zone subject to the standards of § 267.18(a).

(3) Tank systems will withstand the effects of frost heave.

§ 267.192 What handling and inspection procedures must I follow during installation of new tank systems?

(a) You must ensure that you follow proper handling procedures to prevent damage to a new tank system during installation. Before placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified, registered professional engineer, either of whom is trained and experienced in the proper installation of tank systems or components, must inspect the system for the presence of any of the following items:

(1) Weld breaks.

(2) Punctures.

(3) Scrapes of protective coatings.

(4) Cracks.

(5) Corrosion.

(6) Other structural damage or inadequate construction/installation.

(b) You must remedy all discrepancies before the tank system is placed in use.

§ 267.193 What testing must I do?

You must test all new tanks and ancillary equipment for tightness before

you place them in use. If you find a tank system that is not tight, you must perform all repairs necessary to remedy the leak(s) in the system before you cover, enclose, or place the tank system into use.

§ 267.194 What installation requirements must I follow?

(a) You must support and protect ancillary equipment against physical damage and excessive stress due to settlement, vibration, expansion, or contraction.

(b) You must provide the type and degree of corrosion protection recommended by an independent corrosion expert, based on the information provided under § 267.191(c), to ensure the integrity of the tank system during use of the tank system. An independent corrosion expert must supervise the installation of a corrosion protection system that is field fabricated to ensure proper installation.

(c) You must obtain, and keep at the facility, written statements by those persons required to certify the design of the tank system and to supervise the installation of the tank system as required in §§ 267.192, 267.193, and paragraphs (a) and (b) of this section. The written statement must attest that the tank system was properly designed and installed and that you made repairs under §§ 267.192 and 267.193. These written statements must also include the certification statement as required in 40 CFR 270.11(d).

§ 267.195 What are the secondary containment requirements?

To prevent the release of hazardous waste or hazardous constituents to the environment, you must provide secondary containment that meets the requirements of this section for all new and existing tank systems.

(a) Secondary containment systems must be:

(1) Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, groundwater, or surface water at any time during the use of the tank system; and

(2) Capable of detecting and collecting releases and accumulated liq-

uids until the collected material is removed.

(b) To meet the requirements of paragraph (a) of this section, secondary containment systems must be, at a minimum:

(1) Constructed of or lined with materials that are compatible with the wastes(s) to be placed in the tank system and must have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which it is exposed, climatic conditions, and the stress of daily operation (including stresses from nearby vehicular traffic).

(2) Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift.

(3) Provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours.

(4) Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. You must remove spilled or leaked waste and accumulated precipitation from the secondary containment system within 24 hours, or as promptly as possible, to prevent harm to human health and the environment.

§ 267.196 What are the required devices for secondary containment and what are their design, operating and installation requirements?

(a) Secondary containment for tanks must include one or more of the following:

(1) A liner (external to the tank).

(2) A double-walled tank.

(3) An equivalent device; you must maintain documentation of equivalency at the facility.

(b) External liner systems must be:

(1) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary.